

IN THE CLAIMS:

Please cancel claims 1-21 and add the following new claims.

Claims 1-21 (Cancelled).

22. (New) A high-frequency coagulation apparatus comprising:

a tubular body having an opening portion which is formed in an end portion of the tubular body, and is open in a predetermined direction;

a high-frequency electric current generation section for generating a high-frequency electric current;

a first electrode provided within the opening portion of the tubular body;

a second electrode provided on the end portion of the tubular body;

a third electrode provided on the tubular body and apart from the second electrode;

a fourth electrode provided separate from the tubular body to contact a living body;

energizing means for electrically connecting the first to fourth electrodes to the high-frequency electric current generation section so that the high-frequency electric current flows between the first and fourth electrodes, and between the second and third electrodes;

a fluid supply section for supplying to the tubular body a fluid which is to be discharged from the opening portion of the tubular body, and is capable of transmitting the high-frequency electric current to be made to flow between the first and fourth electrodes; and

a controller for controlling supplying of the fluid from the fluid supply section to the tubular body, and also supplying of the high-frequency electric current from the high-frequency electric current generation section to the first to fourth electrodes.

23. (New) A high-frequency coagulation apparatus comprising:

a tubular body having an opening portion which is formed in an end portion of the tubular body, and is open in a predetermined direction,

a high-frequency electric current generation section for generating a high-frequency electric current;

a first electrode provided on the end portion of the tubular body;

a fourth electrode provided separate from the tubular body to contact a living body,

energizing means for electrically connecting the first and fourth electrodes to the high-frequency electric current generation section, to thereby to cause the high-frequency electric current flows between the first and fourth electrodes,

a fluid supply section for supplying to the tubular body a fluid which is to be discharged from the opening portion of the tubular body, and is capable of transmitting the high-frequency electric current to be made flow between the first and fourth electrodes; and

a controller for controlling supplying of the fluid from the fluid supply section to the tubular body, and also supplying of the high-frequency electric current from the high-frequency electric current generation section to the first and fourth electrodes,

wherein the controller has a first mode for supplying the high-frequency electric current from the high-frequency current electric current generation section to the first electrode, and also the fluid from the fluid supply section to the tubular body, and making the current flow to the fourth electrode by using the fluid, and a second mode for supplying the high-frequency electric current generated from the high-frequency electric current generation

section from the first electrode to the fourth electrode, and stopping the supplying of the fluid from the fluid supply section to the tubular body.

24. (New) The high-frequency coagulation apparatus according to claim 22, wherein in the second mode, the second and third electrodes are brought into contract with a part to be treated of a living body, and the high-frequency electric current is made to flow between the second and third electrodes.

25. (New) The high-frequency coagulation apparatus according to claim 22 or 23, which further comprises a mode selecting section for selecting one of the first and second modes, and wherein the controller comprises (i) a first control section for controlling supplying of the high-frequency electric current generated from the high-frequency electric current generation section to the electrodes, (ii) a second control section for controlling the supplying of the fluid from the fluid supply section to the tubular body, and (iii) a third control section for controlling the first and second control sections in accordance with selection by the mode selection section.

26. (New) The high-frequency coagulation apparatus according to claim 25, wherein:

the first control section is a switch for switching a connection state of an electric circuit connecting the high-frequency electric current generation section and the electrodes;

the second control section is an open/close valve provided in a circuit extending from the fluid supply section to the tubular body; and

the third control section controls the switch and the open/close valve in response to a signal from the mode selecting.

27. (New) The high-frequency coagulation apparatus according to claim 26, wherein operations of the switch and the open/valve are performed in association with each other.

28. (New) The high-frequency coagulation apparatus according to claim 22 or 23, wherein the tubular body is insertable into a channel of an endoscope, and the end portion of the tubular body is projectable from a distal opening of the channel of the endoscope.

29. (New) The high-frequency coagulation apparatus according to claim 22 or 23, wherein the tubular body is a bendable tube.

30. (New) The high-frequency coagulation apparatus according to claim 22 or 24, wherein the fluid supplied from the fluid supply section is an inert gas.

31. (New) The high-frequency coagulation apparatus according to claim 22, wherein at least one of the second and third electrodes is embedded in the tubular body by one of tube-molding and insert-molding, or bonded within a lumen provided in the tubular body.

32. (New) The high-frequency coagulation apparatus according to claim 23, wherein a flow path of the fluid from the fluid supply section to the opening portion of the tubular body serves as both a water lumen for conveying water and a smoke extraction lumen for discharging smoke generated when a high-frequency processing is performed.

33. (New) The high-frequency coagulation apparatus according to claim 23, wherein the tubular body includes a distal end portion having the opening portion, a proximal end portion having an introduction portion into which the fluid from the fluid supply section is to be introduced, and a bendable connecting portion connecting the distal end portion and the proximal end portion.

34. (New) The high-frequency coagulation apparatus according to claim 33, wherein the distal end body, the proximal end portion and the connecting portion are formed integral with each other.

35. (New) The high-frequency coagulation apparatus according to claim 33, wherein a direction where the opening portion is open is substantially coincident with a longitudinal central axis of the connecting portion.

36. (New) The high-frequency coagulation apparatus according to claim 33, wherein an end face of the distal end portion is annular.

37. (New) The high-frequency coagulation apparatus according to claim 22, wherein at least one of the second and third electrodes projects from a surface of the tubular body.

38. (New) A high-frequency coagulation apparatus comprising:
a supply pipe path for supplying gas capable of transmitting a high-frequency current, toward a living body;

a first electrode to which a first high-frequency current is supplied when the gas is supplied through the supply pipe path, the first electrode being provided to supply the first high-frequency current to the living body by using the gas as a medium;

a second electrode to which a second high-frequency current is supplied when the gas is not supplied through the supply pipe path, and which supplies the second high-frequency current to the living body when the second electrode is brought into contact with the living body; and

switching-controlling means for switching supplying of the first high-frequency current to the first electrode and supplying of the second high-frequency current to the second electrode, and for supplying the gas through the supply pipe path when the first high-frequency current is supplied to the first electrode, and stopping the supplying of the gas through the supply pipe path when the second high-frequency current is supplied to the second electrode.